

**WHAT IS CLAIMED IS:**

1                   1.       A burner with a plurality of fingers comprising:  
 2                   a burner head having fingers corresponding in number to said plurality  
 3                   and having a peripheral wall with a second plurality of ports positioned along the  
 4                   peripheral wall of each one of said plurality of fingers;  
 5                   a cap having an overlapping fingers corresponding in number to said  
 6                   plurality of fingers and having a lip extending laterally beyond the peripheral wall;  
 7                   a plurality of flame vents connecting adjacent ports along said  
 8                   peripheral wall.

1                   2.       The invention as defined in claim 1 wherein each vent  
 2                   comprises a recess, formed in at least one of said cap and said peripheral wall,  
 3                   positioned intermediate adjacent ports.

1                   3.       The invention as defined in claim 2 wherein said recess  
 2                   includes an expanded transfer area at an intermediate point between said adjacent  
 3                   ports.

1                   4.       The invention as defined in claim 2 wherein said recess is  
 2                   formed in said cap and bounded by a protruding lip.

1                   5.       The invention as defined in claim 4 wherein said lip comprises  
 2                   a continuous wall along each said finger.

1                   6.       The invention as defined in claim 5 wherein said lip is  
 2                   scalloped.

1                   7.       A burner for a cooktop comprising:  
 2                   a base for mounting said burner in a cooktop;  
 3                   at least one upper member defining at least in part a plurality of ports;  
 4                   a collar carried by said base;  
 5                   a stem carried by said at least one upper member;

6 an indexer carried by at least one of said collar and said stem limiting  
7 insertion of said stem to at least one predetermined alignment, whereby said indexer  
8 aligns said at least one upper member in a said at least one predetermined alignment  
9 with said base.

1 8. The invention as defined in claim 7 wherein said indexer  
2 comprises a spline.

1 9. The invention as defined in claim 8 wherein said indexer  
2 comprises a plurality of splines.

1 10. The invention as defined in claim 7 wherein said base includes  
2 an ignitor element and wherein said predetermined alignment positions said ignitor  
3 element adjacent one of said ports.

1 11. The invention as defined in claim 7 wherein said at least one  
2 member comprises a burner head having a plurality of fingers with a peripheral wall  
3 enclosing a gas path and including a plurality of port openings.

1 12. A cooktop burner comprising:  
2 a body having a plurality of fingers extending outwardly from a  
3 central body portion, said body comprising:  
4 a burner head having a central wall, and a peripheral wall on the  
5 central wall including a plurality of openings forming ports;  
6 a base including a head support for said head, and a support for an  
7 ignitor, said head support including a first indexer for limiting insertion of said head  
8 to at least one predetermined alignment with respect to said ignitor support; and  
9 a burner cap including a covering wall positioned over said peripheral  
10 wall, a support for carrying said cap on said head, said support including a second  
11 indexer limiting insertion of said cap to a predetermined alignment with respect to  
12 said head.

1                    13.    The invention as described in claim 12 wherein at least one of  
2    said indexers includes a spline.

1                    14.    The invention as described in claim 13 wherein said at least  
2    one indexer comprises a plurality of splines.